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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------|------------------|
| 10/004,237 | 10/31/2001 | Yong Kyun Cho | P-9957.00 | 2097 |
| 27581 | 7590 | 02/06/2004 | EXAMINER | |
| MEDTRONIC, INC. 710 MEDTRONIC PARKWAY NE MS-LC340 MINNEAPOLIS, MN 55432-5604 | | | SMITH, RUTH S | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3737 | |
| | | | DATE MAILED: 02/06/2004 | 9 |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|--------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/004,237 | CHO ET AL. |
| | Examiner Ruth S Smith | Art Unit 3737 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 31 March 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 2-6,8-13 and 15-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 2-6,8-13 and 15-19 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____.
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)
 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) Other: _____

Specification

The disclosure is objected to because of the following informalities: On page 5, after the brief description of figure 19, the brief description of figure 13 is questioned. Appropriate correction is required.

Drawings

The drawings were received on March 31, 2003. These drawings are acceptable.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2,4-6,8,9,11-13,15,17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prutchi et al (WO 99/37360) in view of Hartlaub et al ('764). Prutchi et al disclose an implantable cardiac stimulator/pacemaker having a safe noise mode. The device includes means for detecting the presence of an electromagnetic interference signal, a switching device for switching from a first sensing mode using

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electrodes 110,120,140,150 and sensors 162,164, to the safe noise mode which uses sensor 172 when the interference signal is above a certain level. Hartlaub et al discloses control of externally induced current in implantable medical devices where the current can be induced by EMI signals emitted from an MRI system. It is well known in the art that one possible cause of electromagnetic interference signals is due to MRI system operation as taught for example by Hartlaub et al (see column 3, lines 50-64). Hartlaub et al further discloses means for protecting the implantable device from interference by an interference signal by opening a case switch for the implantable device (as disclosed by applicant on page 13 of the specification). Therefore, it would have been obvious to one skilled in the art that the device of Prutchi et al would respond to MRI interference signals as it would to any other type of known EMI signals. Furthermore, it would have been obvious to have modified Prutchi et al such that it includes means for opening the case switch for the implantable device in order to further protect the device from interference caused by the interference signal. With respect to claim 9, in the absence of any showing of criticality, the threshold level selected would have been an obvious selection to one skilled in the art without undue experimentation at a level that would not affect operation of the device.

Claims 3,10,16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prutchi et al in view of Hartlaub et al ('764) as applied to claims 2,8,15 above, and further in view of Silvian et al or Ehnholm et al. Silvian et al and Ehnholm et al each disclose that a Hall Effect sensor is a well known type of magnetic field sensor. It would have been obvious to one skilled in the art to have further modified Prutchi et al such that the sensor used to detect the MRI interference signal is a Hall Effect sensor. Such a modification merely involves the substitution of one well known type of magnetic field sensor for another.

Response to Arguments

Applicant's arguments with respect to claims 2-6,8-13,15-19 have been considered but are moot in view of the new ground(s) of rejection.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth S Smith whose telephone number is (703) 308-3063. The examiner can normally be reached on M-F 5:30 AM- 2:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dennis Ruhl can be reached on (703) 308-2262. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.



Ruth S Smith
Primary Examiner
Art Unit 3737

RSS